

AMENDMENTS TO THE CLAIMS

1. (CURRENTLY AMENDED) A method in a network switch having a plurality of network switch ports, the method comprising:

first determining a priority for [[a]] each data frame received on a corresponding network switch port, each network switch port including a port filter configured for determining the corresponding priority for the corresponding received data frame, the first determining including determining, by the corresponding port filter of the corresponding network switch port having received the data frame, the corresponding priority for the corresponding data frame;

second determining a depletion of network switch resources; and

selectively outputting a flow control frame on the network switch port based on the determined depletion of network switch resources relative to the determined priority.

2. (CANCELED).

3. (ORIGINAL) The method of claim 1, further comprising storing the determined priority within a table configured for storing the determined priority for each of a plurality of the network switch ports.

4. (ORIGINAL) The method of claim 3, wherein the second determining step includes determining whether an availability of the network switch resources falls below a first prescribed threshold value.

5. (ORIGINAL) The method of claim 4, further comprising setting the first prescribed threshold value based on a user-defined priority threshold.

6. (ORIGINAL) The method of claim 5, wherein the setting step includes setting a plurality of prescribed threshold values, including the first prescribed threshold value, based on a plurality of the user-defined priority threshold, respectively.

7. (ORIGINAL) The method of claim 6, wherein:
the first determining step includes determining the priority from a plurality of available priority values;

the second determining step includes determining whether the availability of the network resources has fallen below an identified one of the prescribed threshold values;
and

the selectively outputting step includes identifying from the table the network switch ports having respective priority values less than the corresponding user-defined priority threshold for the identified one prescribed threshold value.

8. (ORIGINAL) The method of claim 6, wherein the step of setting the plurality of prescribed threshold values includes storing the prescribed threshold values and the respective user-defined priority thresholds in a second table.

9. (ORIGINAL) The method of claim 3, further comprising deleting the determined priority from the table after a prescribed aging interval.

10. (ORIGINAL) The method of claim 3, further comprising setting a plurality of prescribed threshold values based on a plurality of respective user-defined priority thresholds.

11. (ORIGINAL) The method of claim 10, wherein:
the first determining step includes determining the priority from a plurality of available priority values;

the second determining step includes determining whether the availability of the network resources has fallen below an identified one of the prescribed threshold values; and

the selectively outputting step includes identifying from the table the network switch ports having respective priority values less than the corresponding user-defined priority threshold for the identified one prescribed threshold value.

12. (CURRENTLY AMENDED) An integrated network switch comprising:

a plurality of network switch ports, each configured for receiving a data packet and selectively outputting a flow control frame in response to a flow control output signal, each network switch port including a port filter configured for determining a corresponding determined priority value for the corresponding received data packet; and

a flow control module configured for determining a depletion of network switch resources, the flow control module configured for storing, for each of the network switch ports, [[a]] the corresponding determined priority value based on the corresponding received data packet, the flow control module selectively outputting the flow control output signal to selected ones of the network switch ports based on the determined depletion of network switch resources relative to the respective determined priority values.

13. (CANCELED).

14. (ORIGINAL) The switch of claim 13, wherein the flow control module includes a first table configured for storing the determined priority values for the respective network switch ports, and a second table configured for storing a plurality of prescribed resource threshold values and respective user-defined priority thresholds, the flow control module configured for determining whether the availability of the network resources has fallen below an identified one of the prescribed resource threshold values.

15. (ORIGINAL) The switch of claim 14, wherein the flow control module is configured for selecting the selected ones of the network switch ports based on the respective determined priority values being less than the corresponding user-defined priority threshold for the identified one prescribed resource threshold value.

16. (ORIGINAL) The switch of claim 14, further comprising a free buffer queue configured for storing unused frame pointers, each unused frame pointer specifying a corresponding buffer memory location available for storage of frame data, the flow control module configured for determining the depletion of network switch resources based on a comparison between a number of the unused frame pointers in the free buffer queue relative to the prescribed resource threshold values.

17. (ORIGINAL) The switch of claim 12, wherein the flow control module deletes the determined priority value for a selected one of the network switch ports after a prescribed aging interval.

18. (CANCELED).